(No Model.)

A. TRUSCOTT.

LEAD PENCIL.

No. 455,422. Patented July 7, 1891.

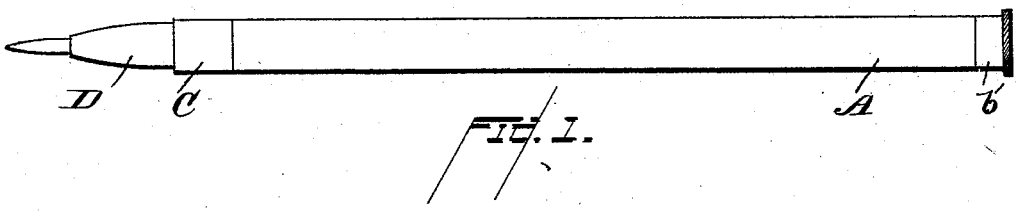

FIG. 1.

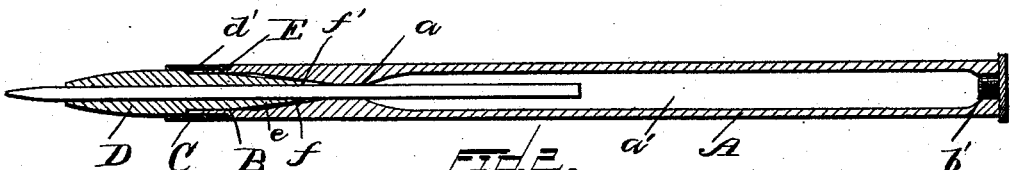

FIG. 2.

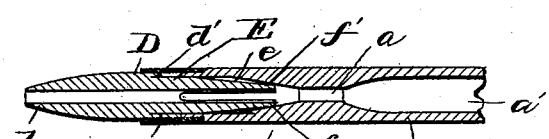

FIG. 3.

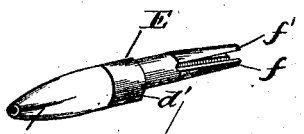

FIG. 4.

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UNITED STATES PATENT OFFICE.

ARTHUR TRUSCOTT, OF COLUMBIA, TENNESSEE.

LEAD-PENCIL.

SPECIFICATION forming part of Letters Patent No. 455,422, dated July 7, 1891.

Application filed February 19, 1891. Serial No. 382,041. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR TRUSCOTT, a citizen of the United States, residing at Columbia, in the county of Maury and State of Tennessee, have invented certain new and useful Improvements in Lead-Pencils; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to lead and crayon holders, and has for its object to provide a holder which can be constructed and sold at a cost but little exceeding that of the ordinary lead-pencil of commerce, and yet possesses many advantages over the pencils and holders now in use, being much simpler in construction and more effective in operation than those heretofore made, as will be more fully set forth in the following specification and claims and illustrated in the drawings which accompany and form a part thereof.

Figure 1 of the drawings is a side elevation of my improved crayon-holder. Fig. 2 is a central longitudinal section of the same, the lead-holding device being shown in operative position. Fig. 3 is a section of a portion of my holder, showing the lead-gripping fingers open or in inoperative position. Fig. 4 is a perspective view of the lead-holding device.

The same letters of reference denote the same parts throughout the specification and drawings.

Referring now to the drawings, A denotes the body of the pencil or holder, which may be bored to form the lead-aperture *a* and enlarged chamber *a'*, or it may be formed in two parts correspondingly grooved. The rear end of the said body A is closed by means of a cap or screw-plug *b'* to prevent the leads from sliding out, and also affords a convenient means for filling the chamber *a'* when it is empty. Said chamber *a'* is made of a size sufficient to accommodate a number of leads, and the forward end thereof is tapered, as shown in Fig. 2, gradually to a size equal to that of the lead-aperture *a*, with which said chamber is thus connected, this arrangement causing the leads to feed from the storage-chamber *a'* into the lead-aperture as they are consumed.

At the forward end of the pencil or holder I form an enlarged chamber or recess B, as best shown in Fig. 2, which is of a uniform size throughout a portion of its length and then tapers at an abrupt angle to the lead-aperture. Around the body A of the holder at the forward end I place the metallic ring or ferrule C, which projects beyond the end of the said body somewhat, and not only serves to strengthen the same at this point, but has another purpose, which I will describe hereinafter.

In Fig. 4 I have shown in perspective the lead-gripping device D, which is preferably formed, as shown, with a conoidally-shaped point *d*, gradually enlarging to a shoulder *d'*, from which point a reduced portion E extends, said reduced portion at its extreme end tapering at an angle to the conical tip *e*. This lead-gripping device or holding-stopper is split through a portion of its length from the rear tip thereof to the reduced portion E, thus forming two spring gripping-fingers *f f'*. This holding-stopper or lead-gripping device D is adapted to have its reduced rear portion E inserted in the recess B at the forward end of the pencil-body A and held therein by frictional contact with the sides of said recess, the diameter of the portion E being such as to insure the frictional engagement of the same with the said recess. The tapering conical tip *e* of said stopper D is somewhat longer than the tapered portion of the recess B and is made on a different angle from the walls of said recess, so that as the holding-tip D is forced into recess B the ends of the spring-fingers *f f'* will strike the sides of the recess and be compressed either to grasp the lead and hold it in operative position or close the passage to the lead-chamber *a'* to prevent the lead from escaping.

When the holding-tip D is in operative position, there will be a short interval between the end of the body portion A and shoulder *d*, which would be objectionable, since the writer grasps the pencil at about this point. I provide for this by means of the ferrule C, hereinbefore referred to, said ferrule project-

ing beyond the body of the pencil a sufficient distance to cover this separated point and give the pencil a smooth exterior, the conoidal tip *d* of the holding device D being of a diameter slightly less than the interior diameter of the ferrule C. Thus all danger of cramping the fingers in using by reason of the joint at this point is removed.

The operation of my improved pencil is as follows: When not in use, the lead-gripping stopper D, which is capable of longitudinal movement within the recess B, formed in the forward end of the pencil, is forced to its inner position, thus compressing the spring-fingers *ff'* and closing the passage from the storage-chamber *a'*, thereby preventing the leads from escaping. When it is desired to use the pencil, a slight forward movement of the stopper D releases the fingers *ff'* and allows the lead to slide freely through the lead-aperture *a* until a sufficient length to suit the purposes of the user has issued, when the said stopper D is again forced inward and the lead gripped by the spring-fingers *ff'*, which fingers, when the writer has finished, at a slight outward movement of stopper D, release the lead and allow it to fall to the storage-chamber *a'*.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. In a lead and crayon holder, the combination, with the main or body portion thereof having a recessed forward end, of a removable projecting lead-holding tip arranged within said recess and having longitudinal movement therein, whereby it may be caused to grasp or release the lead, substantially as described.

2. In a lead and crayon holder, the combination, with the body portion of the same, of a removable projecting lead-holding tip having a reduced and tapering rear portion split to form spring grasping-fingers, said tip being arranged to slide longitudinally in a recess in the forward end of said body portion, whereby said fingers are caused to grasp or release the lead, substantially as described.

3. In a lead and crayon holder, the combination, with the body A, having lead-aperture *a*, storage-chamber *a'*, and enlarged recess B, tapered at its rear end, of the holding-tip D, having the reduced portion E, tapered at its rear end and split to form spring gripping-fingers *ff'*, said fingers being arranged to grasp the lead at a point within the body of the holder, substantially as set forth.

4. In a lead and crayon holder, the combination of the body A, having recess B, holding-tip D, adapted to be inserted in said recess, and ferrule C, arranged to project beyond the end of the body A, as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR TRUSCOTT.

Witnesses:
WM. B. HARRISON,
IRWIN ARNOLD, Jr.